

ICONS OF BAROLO

An In-Depth Investigation of the Barolo Region and the Nature of Terroir

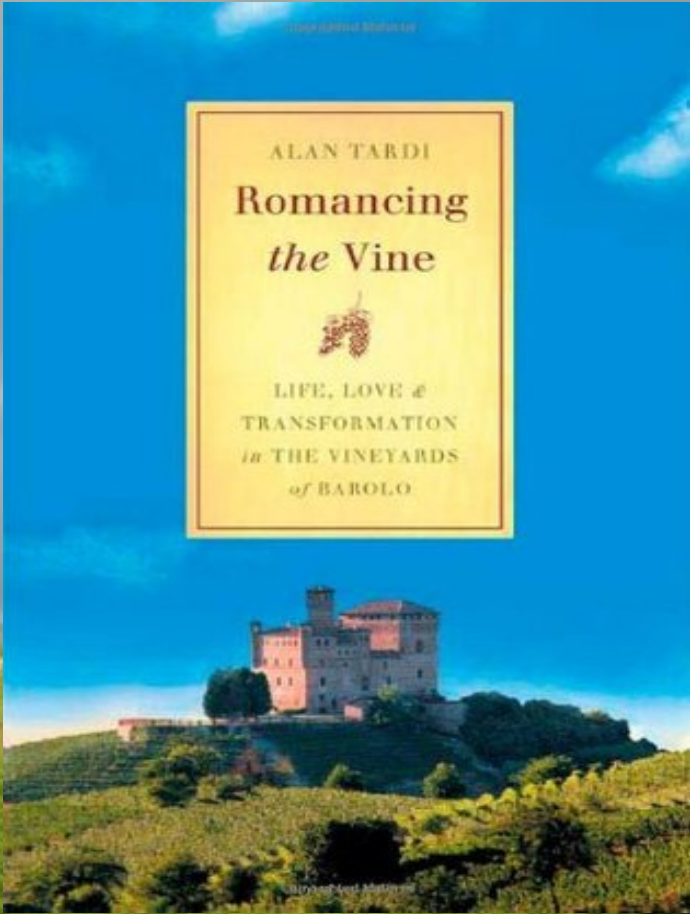
Society of Wine Educators

42nd Annual Conference

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Alan Tardi





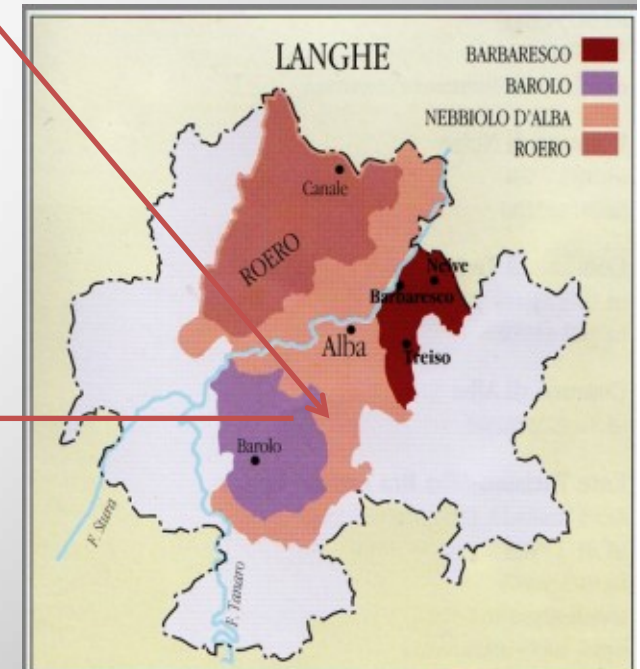
Castiglione Falletto (Castiun Falèt)







System/ Period	Series/ Epoch	Stage/ Age	Age (Ma)	
Quaternary	Pleistocene	Gelasian	younger	
Neogene	Pliocene	Piacenzian	2.58	3.600
		Zanclean	3.600	5.333
	Miocene	Messinian	5.333	7.246
		Tortonian	7.246	11.63
		Serravallian	11.63	13.82
		Langhian	13.82	15.97
		Burdigalian	15.97	20.44
		Aquitanian	20.44	23.03
Paleogene	Oligocene	Chattian	older	

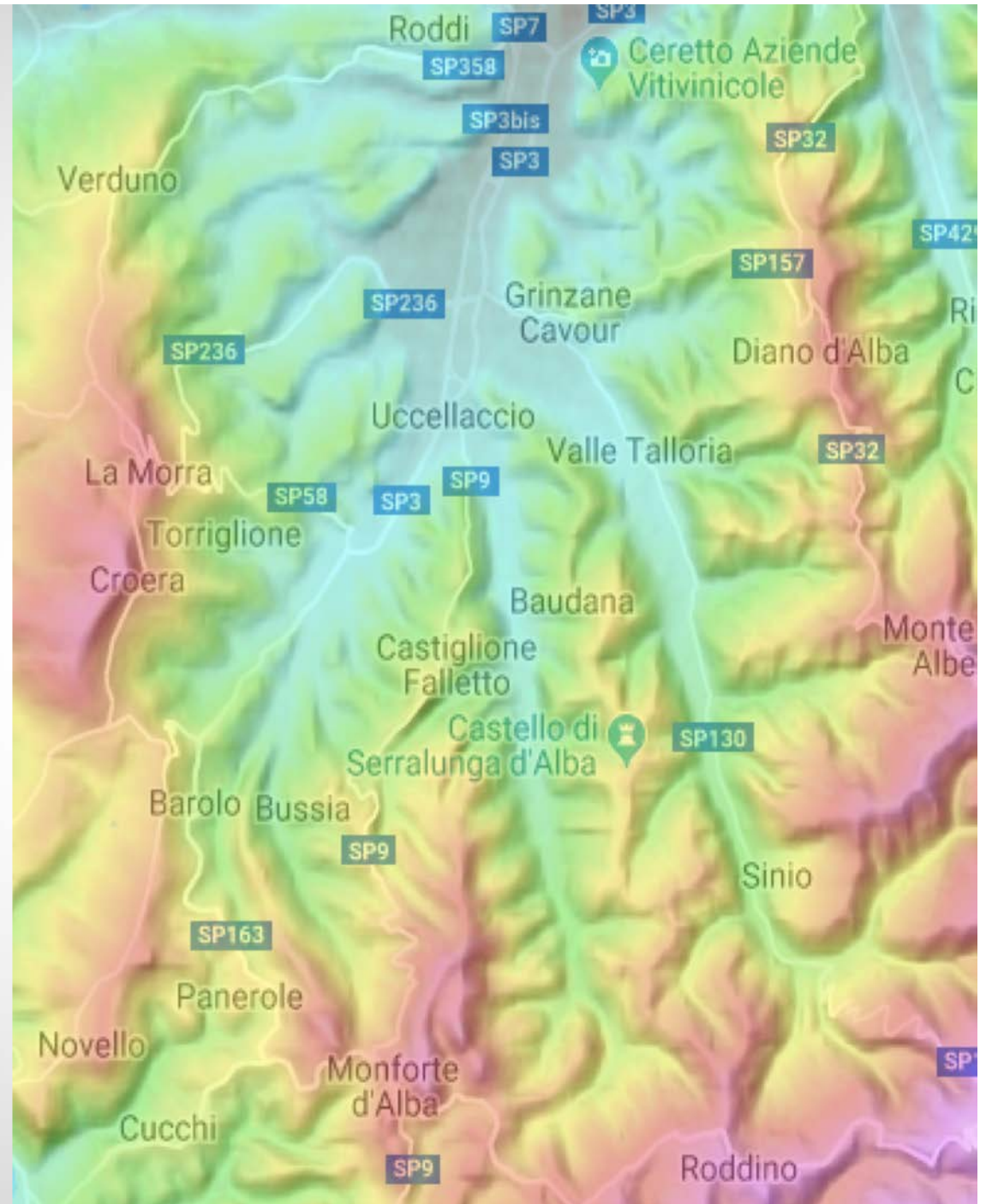


Geologic Timeline

- 36 million years ago: The north-shifting **African tectonic plate collides with the Eurasian plate**, and becomes lodged there, creating the Alps.
- 23 million years ago: a deep depression called the **Piedmont Basin** forms and gradually fills with water, collecting successive deposits of stones, mud and other particles into sedimentary strata over four thousand meters thick, as well as sea creatures and aquatic flora.
- 6 million years ago: The Piedmont Basin gets closed off from the Atlantic Ocean and the **water quickly evaporates** leaving behind abundant marls (mix of fine sand and carbonate sediments) and gypsum, as well as remains of marine animals, fish and plants.

- 5.33 million years ago: The **Zanclean Flood re-fills the Piedmont and Mediterranean basins** with water.
- 4.5 million years ago: strong seismic activity beneath the NW portion of the Piedmont Basin **thrusts the submerged earth upwards**, forcing the water to cascade down to river valleys, carving ravines and molding ridges.
- Severe erosion brings softer, younger sedimentary earth from the tops of the newly formed hills down to the bottom, resulting in a variety of deposits in different places.
- 60, 000 years ago: The Tanaro River changes course from N→S to E→W, accelerating erosion of softer material and exposing older harder substrata, thus enhancing the definition of the ridges.

- Area characterized by a series of N→S oriented spine-like ridges known as Cuesta or Hogbacks rising up from the flat valley south of Alba.
- Running laterally (E→W) off these ascending spinal ridges are descending 'tongues' of earth (*'lenghe'* in Piemontese dialect) tapering off at the valley floor.



Viti-Cultural History

- Original inhabitants were Celtic peoples from North-West Europe and Liguri from the coastal area of Liguria, along with some Etruscans from the south.
- Ancient Romans colonized the area before the Christian Era creating cities (Alba 89 BCE, Turin 27 BCE), building roads, and bringing more sophisticated viticultural practices.
- Western Roman Empire declines and eventually collapses by around 476. Barbarian tribes swarm in from the north and peasants retreat to hilltop strongholds for protection.
- Lombard tribes gain dominance over northeastern Italy 568 to 774, followed by Charlemagne and the Franks.

The House of Savoy

- Dynasty began as ruler of a county in the Alpine region of Savoy around 1003; grew into a Duchy, expanded its influence into Italy, and moved its capital to Turin in 1563.
- In 1713, after the War of Spanish Succession, the House of Savoy **was awarded the Kingdom of Sicily and became a sovereign state.** (Sicily was later swapped for Sardinia.)
- In 1831 Carlo Alberto, of the Turin-based House of Savoy-Carignano, became King of Sardinia.
- In 1848, during political upheaval throughout the city-states of the Italian peninsula, nationalists looked to the Savoia as the best hope for the unification of Italy.

Ancient Rural Culture



Giornata = 3,810 square meters, divided into 100 *tavole* of 38.1 meters each.

- Peasants of the Middle Ages inherited the agricultural legacy of the Celts-Liguri, Etruscans and Romans.
- ***Alteno*** or ***Terra Altenata*** was an agricultural system of alternating crops that developed during the early Medieval period.
- In rural Piedmont land was measured in '***Giornate Piemontese***'. The amount of land a man and his animal could typically work in a day.

The Birth of Barolo

“The King of Wines and the Wine of Kings”

- Though grape growing and wine making had been going on in the Langhe area of Piedmont for thousands of years, it was radically different from the ‘*noble*’ wine we know today.
- Most of the wine was pale of color, cloudy, slightly fizzy, noticeably sweet and very unstable.
- Unlike most other wines that took shape gradually over an extended period and were developed by a mostly anonymous group of people through trial and error, the creation of Barolo was a calculated undertaking that took place at a specific moment in time.
- Three members of the House of Savoy and an enologist (or two) were largely responsible for it.

Marchesa Giulia Falletti di Barolo



1785-1864

- Born Victorieuse Françoise Colbert into a noble family. Uncle was Minister of Finance to Louis the XIV. Fled with father during the Revolution to avoid execution.
- Met Marchese Carlo Tancredi Falletti di Barolo at the court of Napoleon.
- Falletti were an important part of the House of Savoy; owned much of the territory that would later become the core of the Barolo zone (Barolo, Castiglione Falletto, Serralunga).
- Following the death of her husband (1838), Giulia spent much more time in the family's Barolo castle where she made a concerted effort to improve winemaking practices.
- Widely credited with being the first to create a dry Barolo wine.

Count Camilo Benso di Cavour



1810-1861

- Born into a noble family in Turin in 1810, when Piemonte was under Napoleonic rule.
- Major figure in the movement for the independence and reunification of Italy, and largely responsible for drafting the first constitution of the Constitutional Monarchy under Victor Emmanuel II.
- As the first Prime Minister of the reunified Italy in 1861, one of his chief concerns was economic stability and growth.
- Viewed agriculture/viticulture as one of Italy's biggest economic resources.
- Used his family's historic seat at Grinzane Cavour as an example, improving the quality and sustainability of its wine.

Generale Paolo Francesco Staglieno



1773-1850

- Published a book in 1835 called “Instructions Concerning the Best Way to Make and Conserve Wines in Piedmont.”
- Brought to Grinzane by Count Cavour in 1836, to put his wine making principles into practice.
- Called by King Carlo Alberto to the *Tenimento di Pollenzo* in 1837, where he completely overhauled the existing winery and extensive vineyards.
- Remained at Pollenzo for seven years (1843): jumpstarted Italian enology and laid the foundation for what would become known as Barolo.

Carlo Alberto, King of the Savoia



1798-1849



Tenimento di Pollenzo: Royal residence, extensive working farm, hunting grounds, and large winery to vinify grapes from 2,000 *giornate* of vineyards in Santa Vittoria, Verduno and Roddi.

Vittorio Emanuele II, King of Italy



1820-1878



Fontanafredda Estate,
Serralunga d'Alba

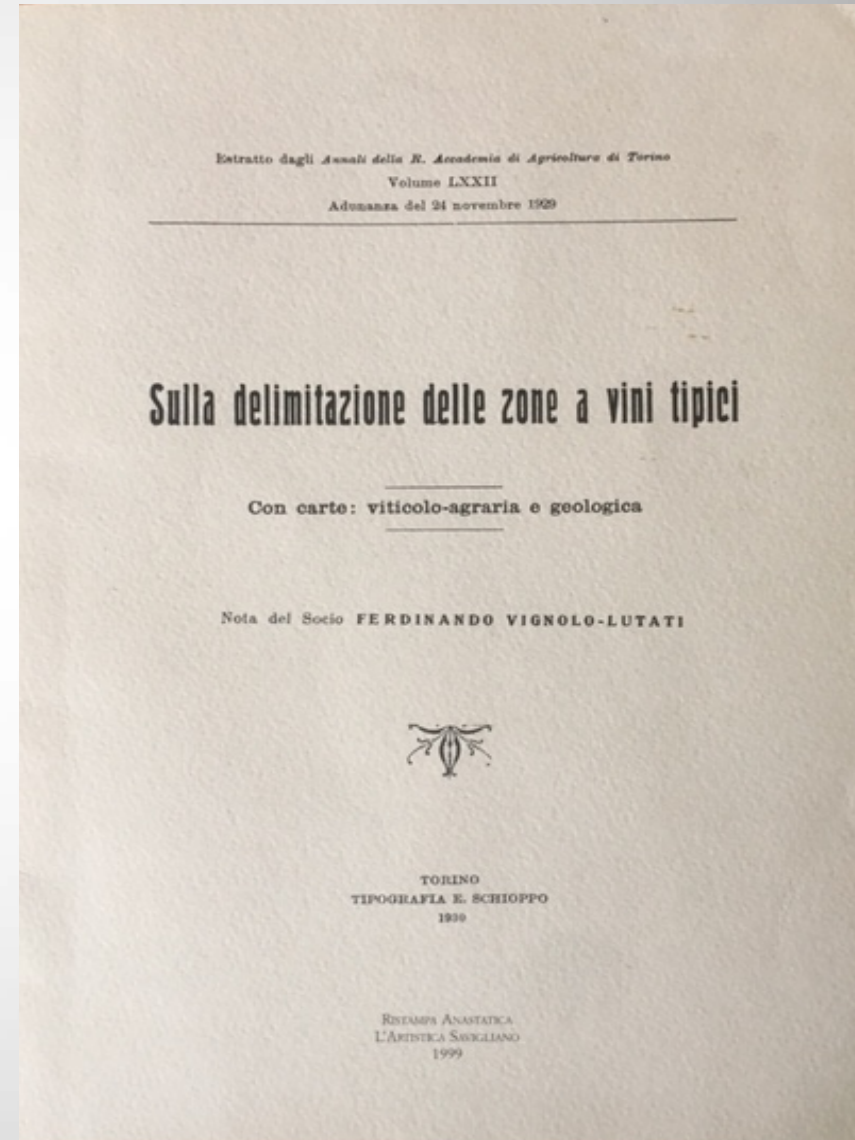
Ferdinando Vignolo-Lutati

17 March 1878 – 15 July 1966

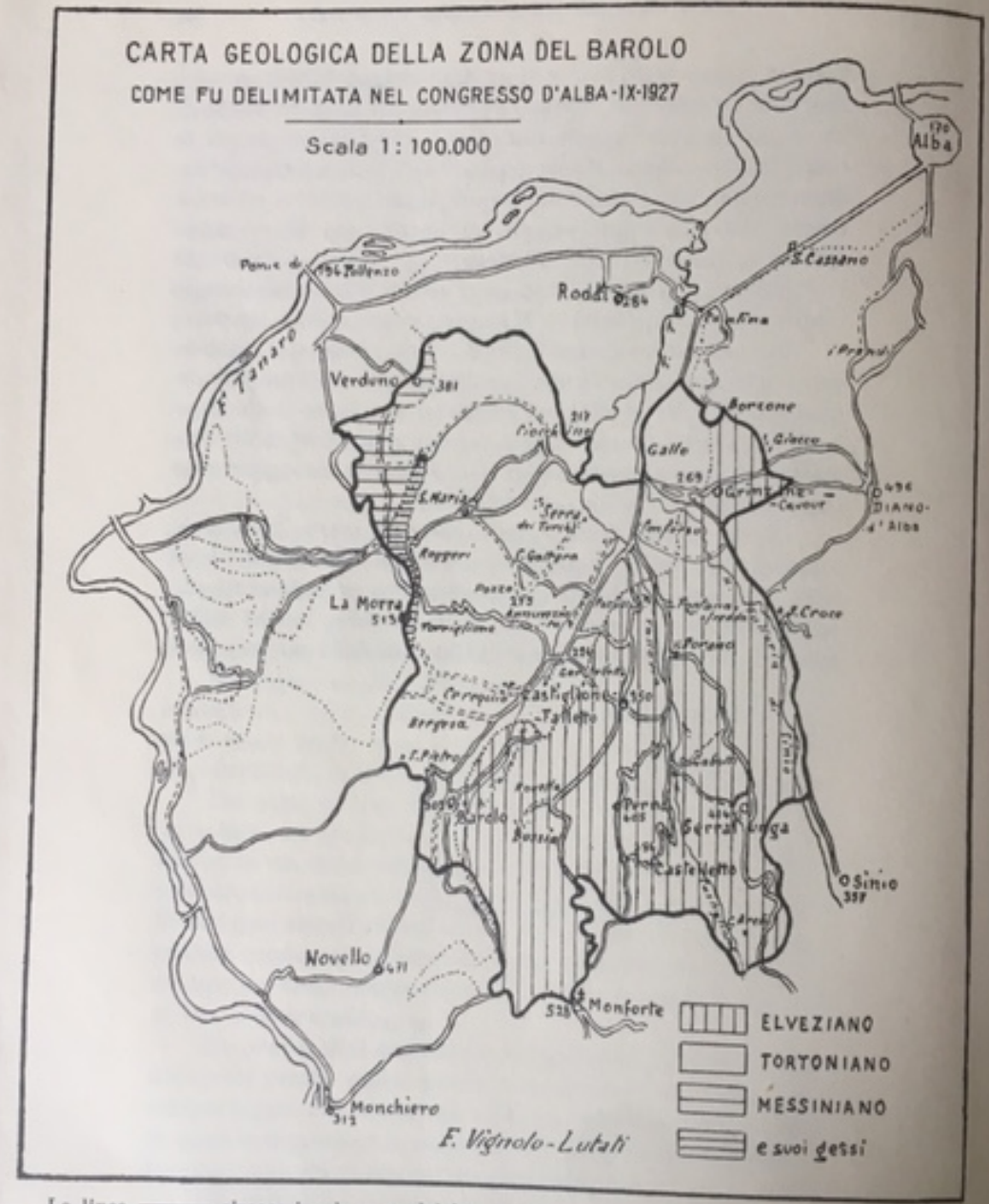


“On the Delimitation of Typical Wine Zones”

Presented November 1929 Torino Agriculture Academy

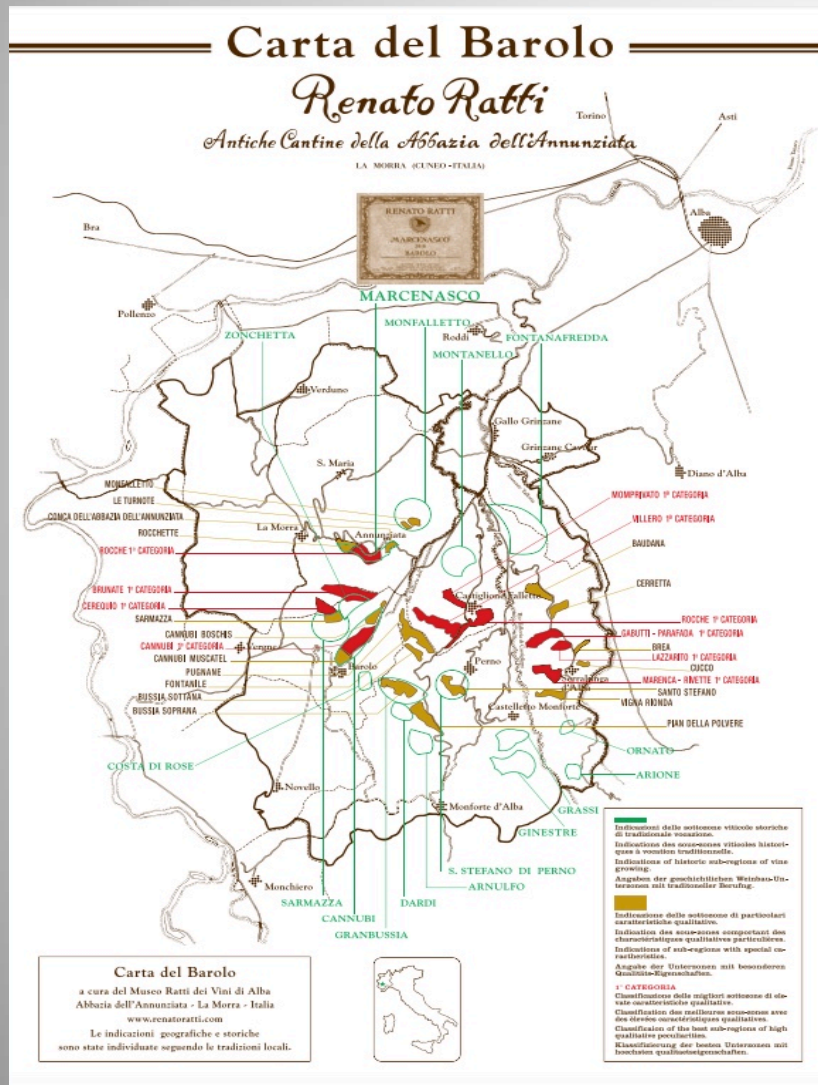


Early Map of Barolo Area Congress of Alba 1927



La linea ——— circoscrive la zona del barolo.

- First group of Barolo producers formed in 1908. Barolo Consortium officially recognized by Italian government in 1934.
- Italian DOC system created in 1963. **Barolo receives DOC status in 1966.** Became DOCG 1980.



- Though each individual vineyard site in the Barolo area had a name and its particular characteristics were well known, the practice was to blend grapes of different areas together in order to obtain a more balanced wine.
- **Single vineyard Barolos began to be made for the first time in 1961,** but the practice did not become widespread until the “Barolo boom” of the late ‘80s-’90s.
- The names of these traditional vineyard sites were not officially registered or the boundaries officially defined until the **vineyard map was overhauled in 2010.**
- “Crus” became known as MGAs (*Menzione Geografica Aggiuntiva*).

Barolo Wine Zone

Vineyards must be located on hills. North-facing hills are excluded.

Comprised of **11 Villages** Total:

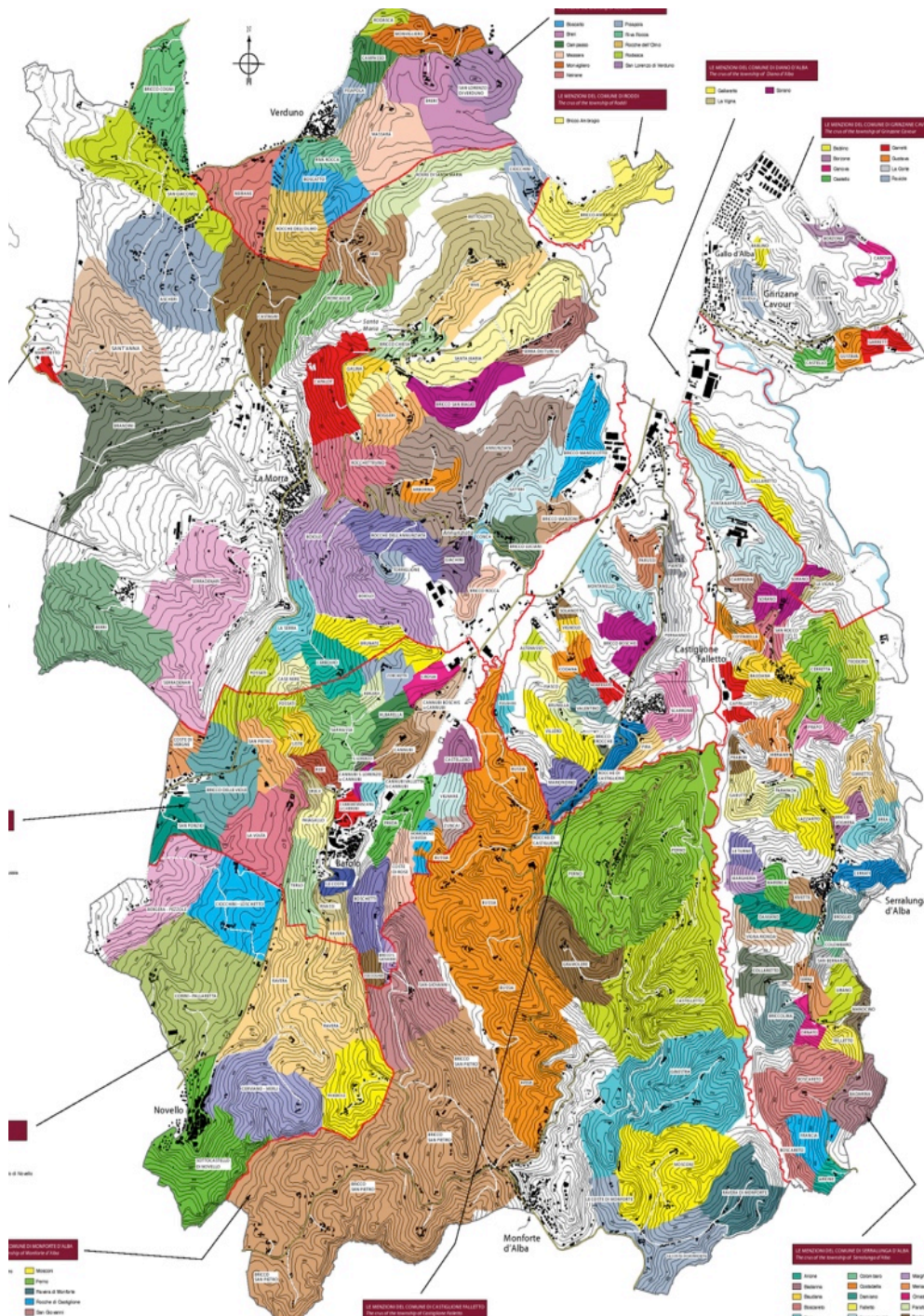
- 5 principal villages
- Only 3 towns located 100% within the zone (Barolo, Castiglione F, Serralunga)

Area principally comprised of
2 geologic formations:

Serravalian (east) \approx 13.65 – 11.60 million years ago: older, more compact soil with high % clay. Big, dense reserved muscular wines that take time to come around.

Tortonian (west) \approx 11.60 – 7.24 million years ago: younger, looser soil. Limestone + sand & marl. Aromatic, elegant, lighter color, finesse.

[**Messinian** (Verduno) \approx 7.24 – 5.33 million years ago]



The Nebbiolo Grape Variety



Barolo = 100% Nebbiolo from approved vineyard sites within the Barolo DOCG area.

Must age for a minimum of three years with at least 18 months in a wood barrel. 5 years for *riserva*.

Probably came to Piedmont from the Valtellina (Lombardy).

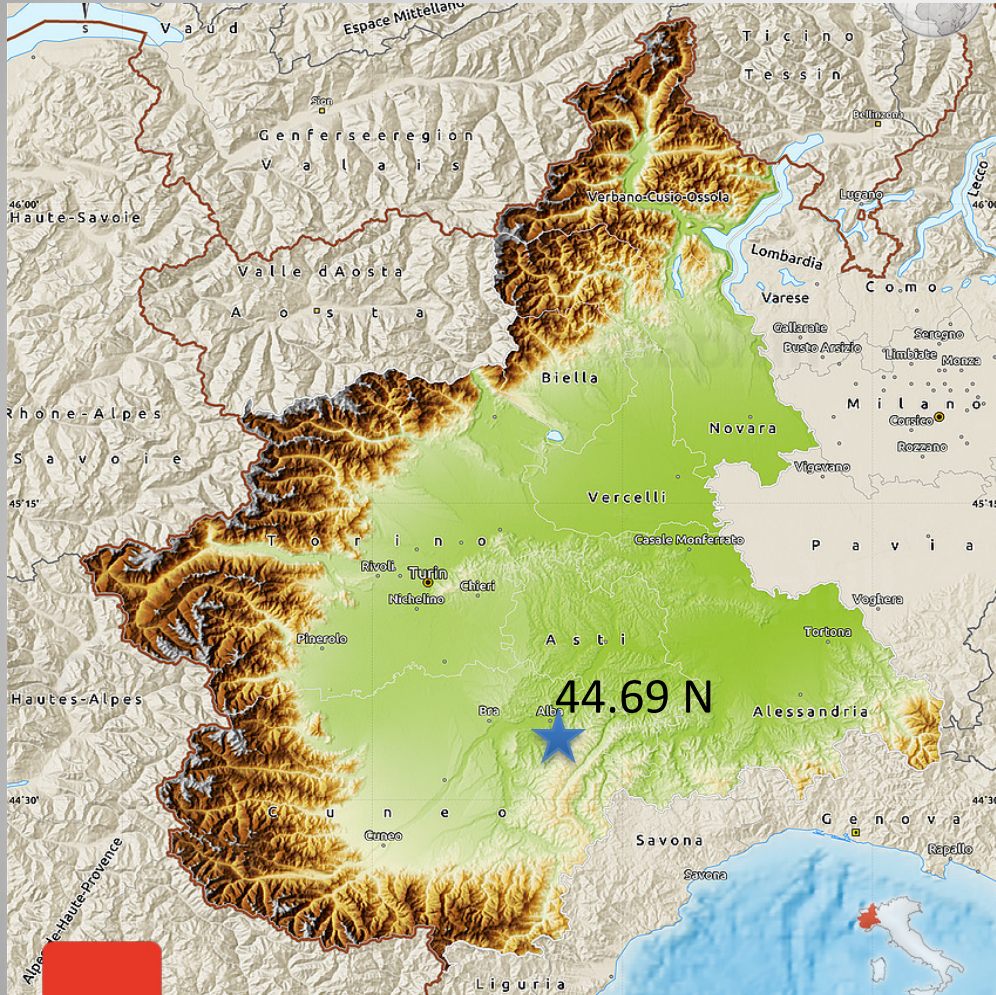
3 main sub-varieties:
Lampia, Michet and Rosé.

Late-ripening; thin skin, pale color, pronounced tannin.

Capacity to evolve favorably over time.

Responds to minute particularities in terroir.

Macroclimate



ICONIC

- Someone or something that is widely recognized and well-established, especially for distinctive excellence.
- Relating to or characteristic of a person or thing that represents something of importance.
- A person or thing regarded as a representative symbol of something.

THE WINES

**Winery &
Producer**



Vintage

**Vineyard-
& Terroir**

Wine

1. Barolo Monvigliero 2014

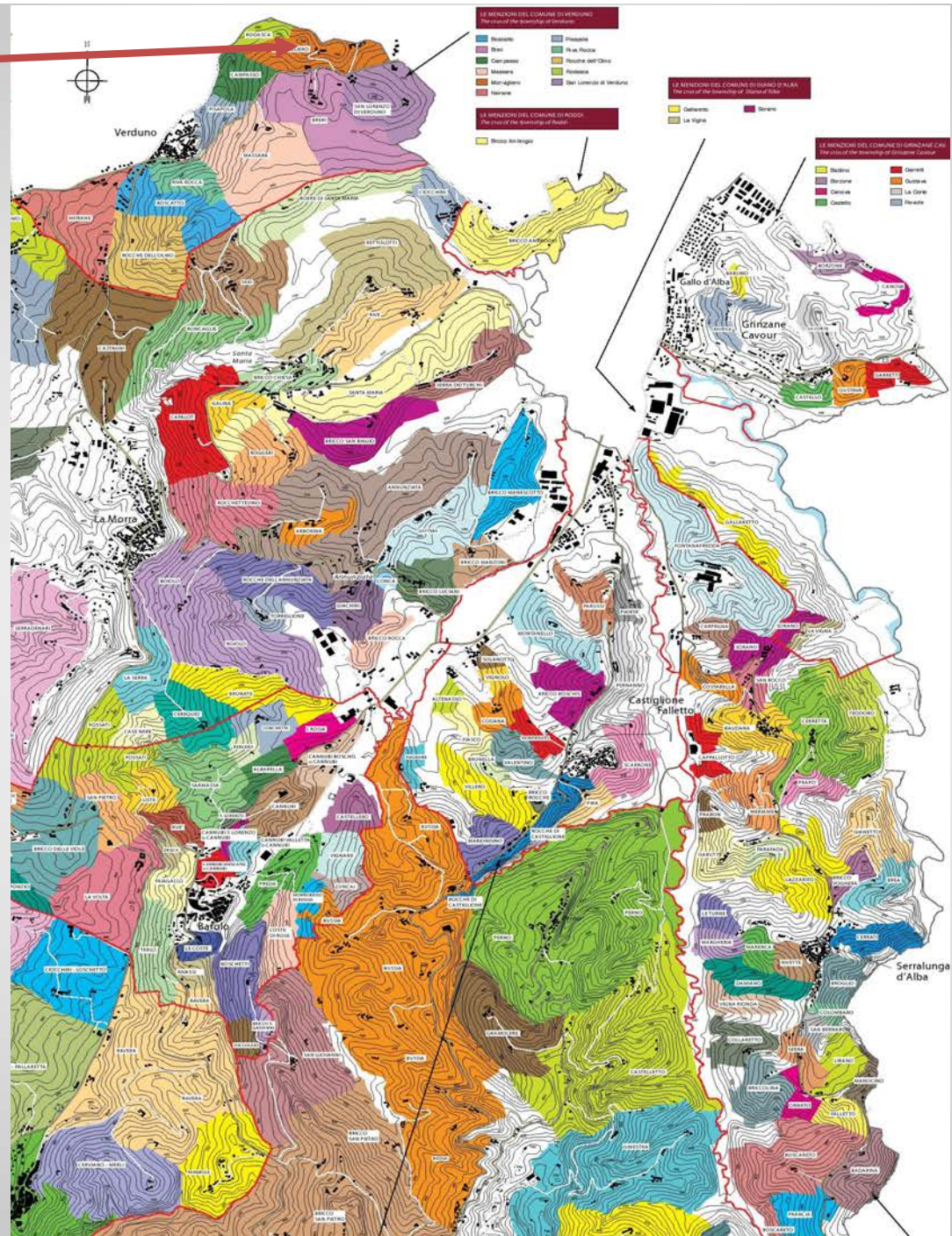
G.B. BURLOTTO

- Gian Battista Burlotto (1850-1927): one of the founders of the Barolo Consorzio and one of the first to bring Barolo to the outside world, marketing his wine in far away places and entering it in international wine competitions.
- Acquired the Castello in Verduno that previously belonged to Carlo Alberto, where General Staglieno lived.
- Enologist Fabio Alessandria, great-great maternal grandson of G.B. Burlotto, manages winery with mother Marina and father Giuseppe.



Ultra-traditional but open to innovations that better express their philosophy.

1. Monvigliero 2014



Monvigliero



- Verduno's finest vineyard and one of the iconic crus of Barolo area.
- Predominantly S-SE facing. Moderate slope.
- Very high proportion of sand. Classic loose Messinian & Tortonian soil.
- Very elegant, aromatic wines with fine tannins.
- 25.5 ha; 13 labels

Vintage 2014

- Challenging: early spring thaw leading to early start of growing season.
- Lots of rain in spring + warm temperatures = high probability of fungal attacks.
- Flash floods and sporadic hail.
- September was critical: warm sunny days, cool nights, good breezes.
- Nebbiolo ripened very well, with nice aromatics and fine tannins.
- Difficult for winegrowers but excellent results for those that worked well.
- Many journalists made judgements based on reports at the beginning of harvest. But everything can change for the late-ripening nebbiolo...

Wine

- 45-year old vines.
- Grapes from Monvigliero crushed by foot to avoid breaking stems/seeds.
- Skin maceration for 60 days.
- Extended maturation in large *botte* of Slavonian oak.



2. Barolo Cannubi-Muscatel 2011

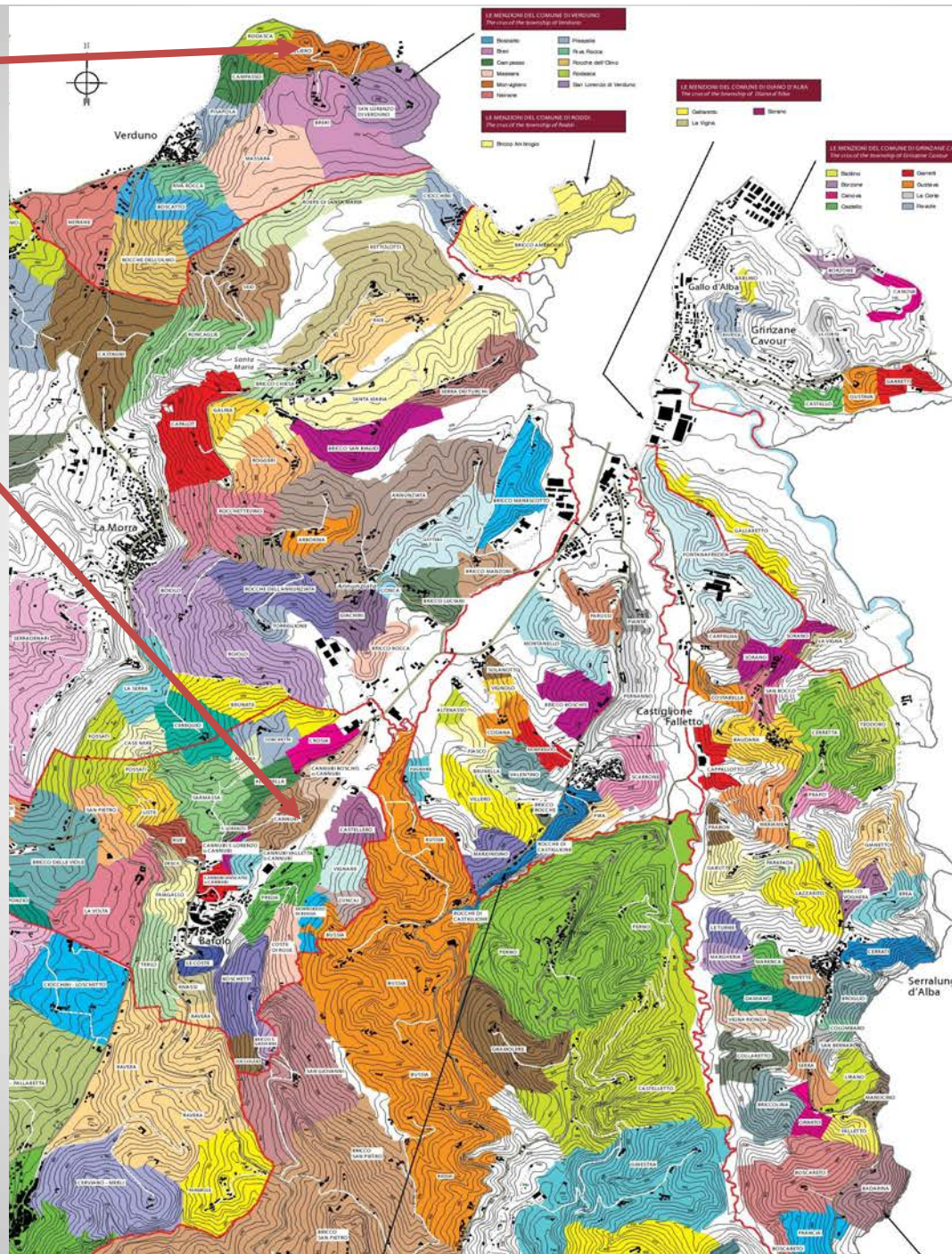
MARCHESI di BAROLO

- 1929: Abbona family acquired the winery of the Marchesi Falletti along with some of their remaining vineyard holdings.
- Cellar still contains some of the historic casks from the time of the Marchesa Giulia Falletti di Barolo.
- New large modern winery at the foot of town.
- Produces full range of Piemontese wines.
- Works 120 ha (65 of which they own) and makes about 1.8 million bottles/year.

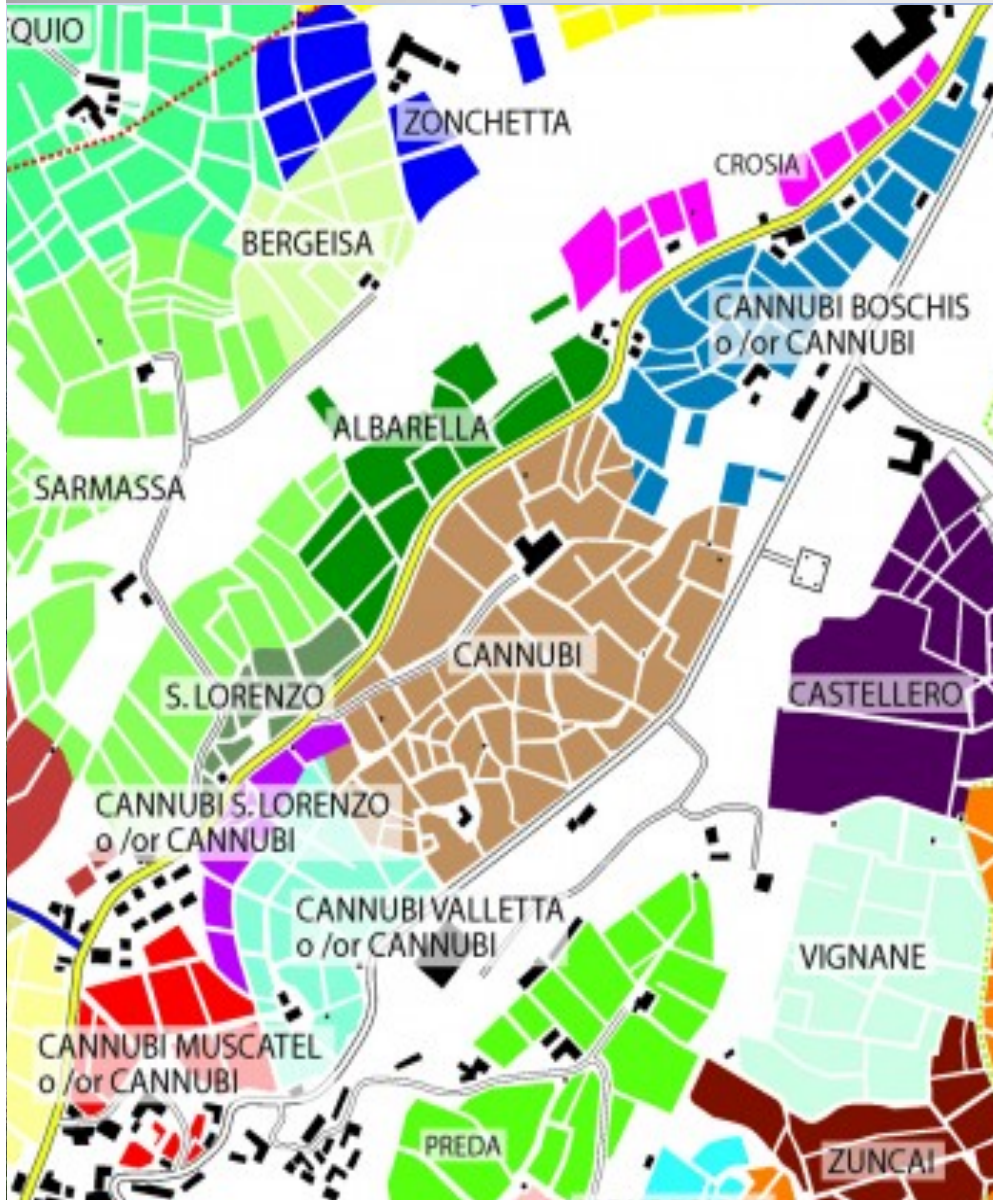


1. Monvigliero 2014

2. Cannubi 2011



Cannubi



- Probably the most famous, widely recognized vineyard of them all.
- Large 'tongue' of earth pointing from the NW-SE.
- Many different producers and exposures: primarily SE but also some parts that face SW and even North.
- Due in part to its fame and size, divided into 5 distinct sub-sections.
- Combination of Tortonian and Serravalian soils: **blue-grey marls: clay mixed with very fine sand** and lots of **Marne di Sant'Agata fossils**.

Vintage 2011

- Unseasonably high temperatures in April caused bud-break two weeks early than previous years.
- Alternating periods of heat and coolness, but within the norm.
- Higher than usual incidence of Flavescence dorée (leaf-yellowing bacteria).
- Some stress caused by extremely high heat in August.
- Rain at the beginning of September and cooler nighttime temperatures changed everything for Nebbiolo.
- Lower than usual yields, but great tannin, acidity and aroma.

Wine

- 10-day maceration with pump-overs.
- After fermentation, wine is racked off into vitrified cement tanks for several months where malolactic takes place.
- Maturation in wood for 2 years: A portion in 3,000-3,500 liter casks of Slavonian oak; the rest in *barrisques* with medium toast.
- Afterwards the two are combined for additional refining in large *botte*.



3. Barolo Rocche di Castiglione Falletto

2010

BROVIA

- Winery founded 1863 by Giacinto Brovia; managed by grandsons Giacinto and Raffaele until 2014 and 2011.
- 19.2 hectares; 60,000 bottles per year, about 55% of it Barolo.
- Produce Barolo from four prestigious sites: Rocche, Villero and Fiasco in Castiglione and Brea in Serralunga.
- Given the very challenging conditions of 2014, they made an interesting decision...



BAROLO
DENOMINAZIONE DI ORIGINE
CONTROLLATA E GARANTITA

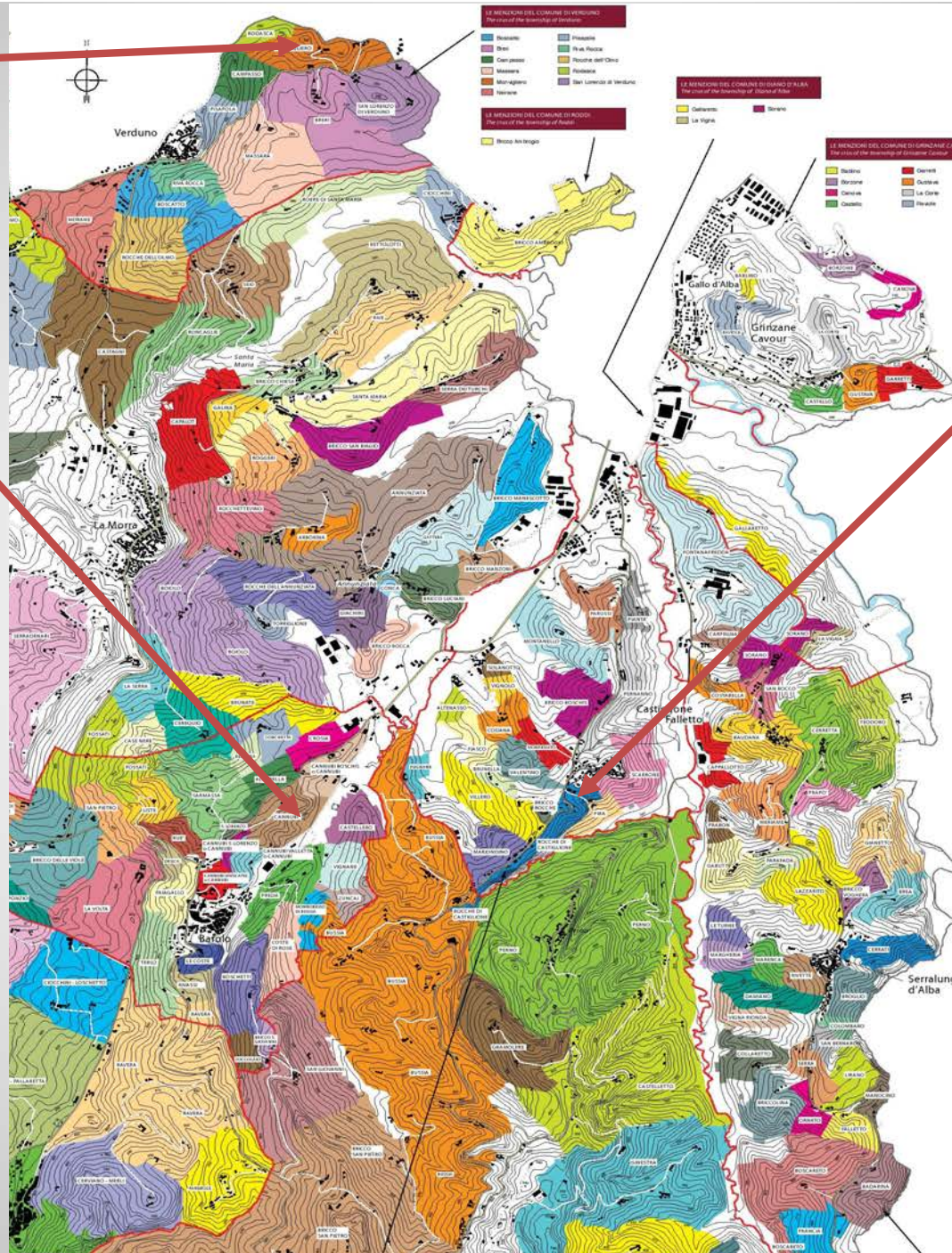
Unio

2014

1. Monvigliero 2014

2. Cannubi 2011

3. Rocche 2010



Rocche di Castiglione Falletto



- Typically a bit lighter in color and alcohol but highly prized for its elegance and perfume.
- Renowned vineyard and one of the very first Barolo crus to be bottled as a single-vineyard.
- Long, narrow vineyard atop a cliff.
- Shallow, loose soil with sand and *Marne di Sant'Agata* deposits.
- Shallow topsoil over limestone rock, forcing roots into cracks to find moisture.
- SE exposition. Steep to very steep.
- Vines planted 1966.
- 1.5 ha plot yields about 5,500 bottles.

Vintage 2010

- Long cold winter which lasted almost until beginning of April. Lots of snow in winter and intermittent rain during spring.
- Relatively cool growing season up to mid-August when a burst of heat occurred, balanced by cool nights.
- These favorable conditions continued through September into October, bringing the late-ripening nebbiolo to near perfect phenolic maturity.
- 2010 referred to as a 'classic' vintage.

Wine

- Spontaneous fermentation with native yeasts.
- Extended fermentation of about 30 days.
- 2 years in 3,000 liter casks of Slavonian or French oak followed by 18-24 months bottle ageing before release.



4. Barolo Riserva Ravera “Vigna Elena” 2006

ELVIO COGNO

- Elvio Cogno founded winery in 1991.
- 11.5 hectares in the Ravera MGA. This is the finest cru of Novello and one of the most notable of the entire zone.
- Valter Fissore championed a white grape variety native to Novello called ‘Nascetta’ that recently became part of the Langhe appellation.
- Makes 4 different Barolos from different subzones of the same MGA:
 - Barolo Ravera (70 yr-old vines)
 - Bricco Pernice (50 yr-old vines)
 - Cascina Nuova
 - Vigna Elena

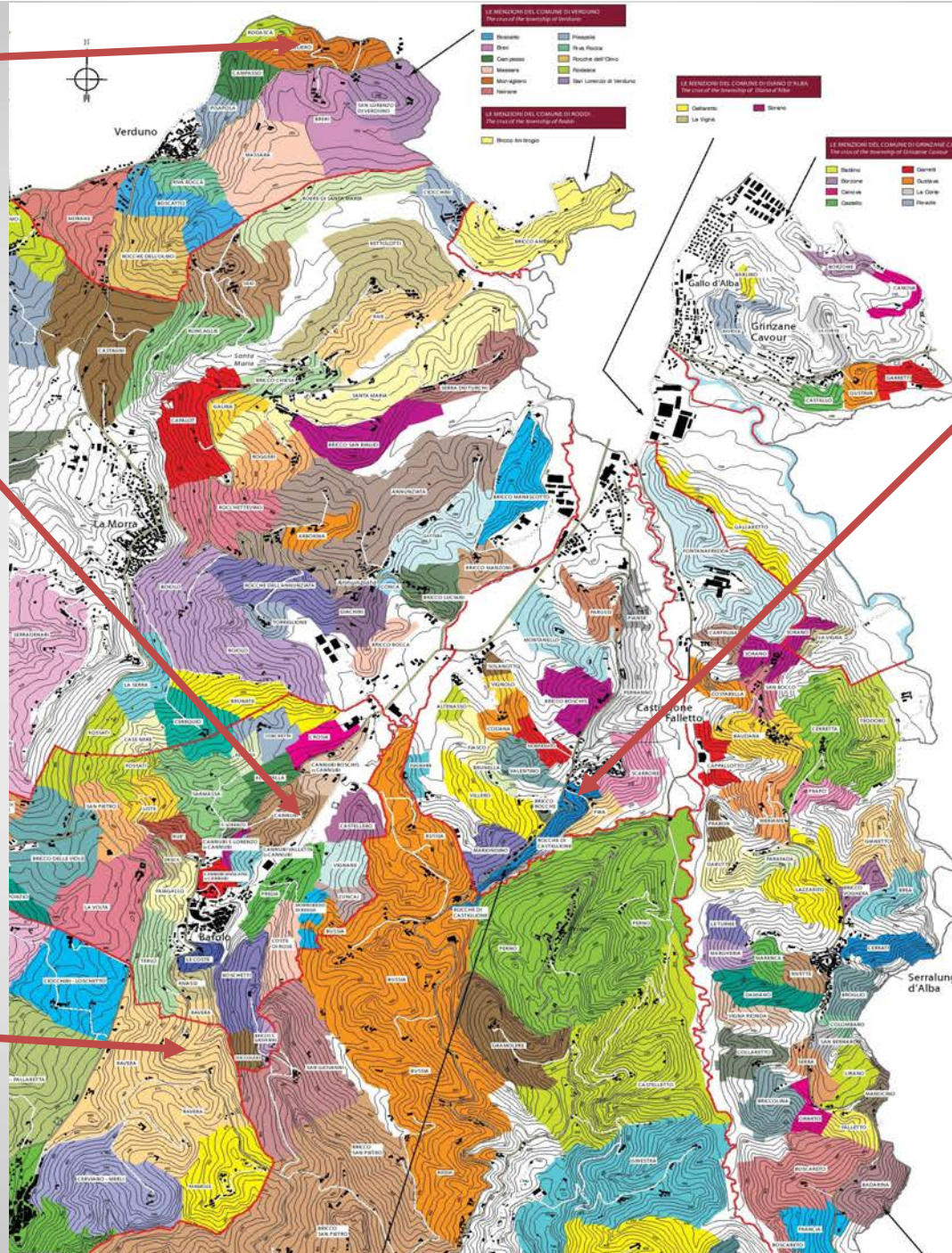


Valter Fissore

1. Monvigliero 2014

2. Cannubi 2011

4. Ravera Vigna Elena 2006



3. Rocche 2010

Ravera “Vigna Elena”



- 380 meters asl, higher than most in the Barolo zone. Cooler; later bud break. South-facing; more intense sun.
- Primarily limestone with small amount of clay and sand. Alkaline soil = good water retention.
- More polyphenols & anthocyanins than typical for Novello & Barolo.
- 1 ha vineyard planted in 1991 entirely with Massal Selection of Nebbiolo Rosé, a sub-variety long renowned for its unique aroma and flavor profile.
- Recently determined by genetic testing that, while closely related to Nebbiolo, Rosé is actually a separate distinct variety.

Vintage 2006

- Long, exceptionally cold wet winter.
- Heat spike mid-May followed by cool beginning of June, with another burst of heat mid-month that carried on through July.
- Cooler August with big shift in day-and nighttime temperatures.
- Return of rain in September, which encouraged good maturation.
- Excellent vintage for Nebbiolo, characterized by very firm tannins and tight structure framing ripe fruit and complex, delicate aromas.
- A vintage that not only benefits from but requires ample time for better wines to show their real potential.

Wine

- 100% Nebbiolo Rosé
- Spontaneous fermentation with native yeast.
- Stainless steel fermentation with periodic pump-overs, followed by 30-day maceration with submerged cap.
- 36 months in 40 hl *botte* of Slavonian oak and 24 months in bottle.
- Made only in exceptional vintages.



5. Barolo Villero 2008 FRATELLI ODDERO

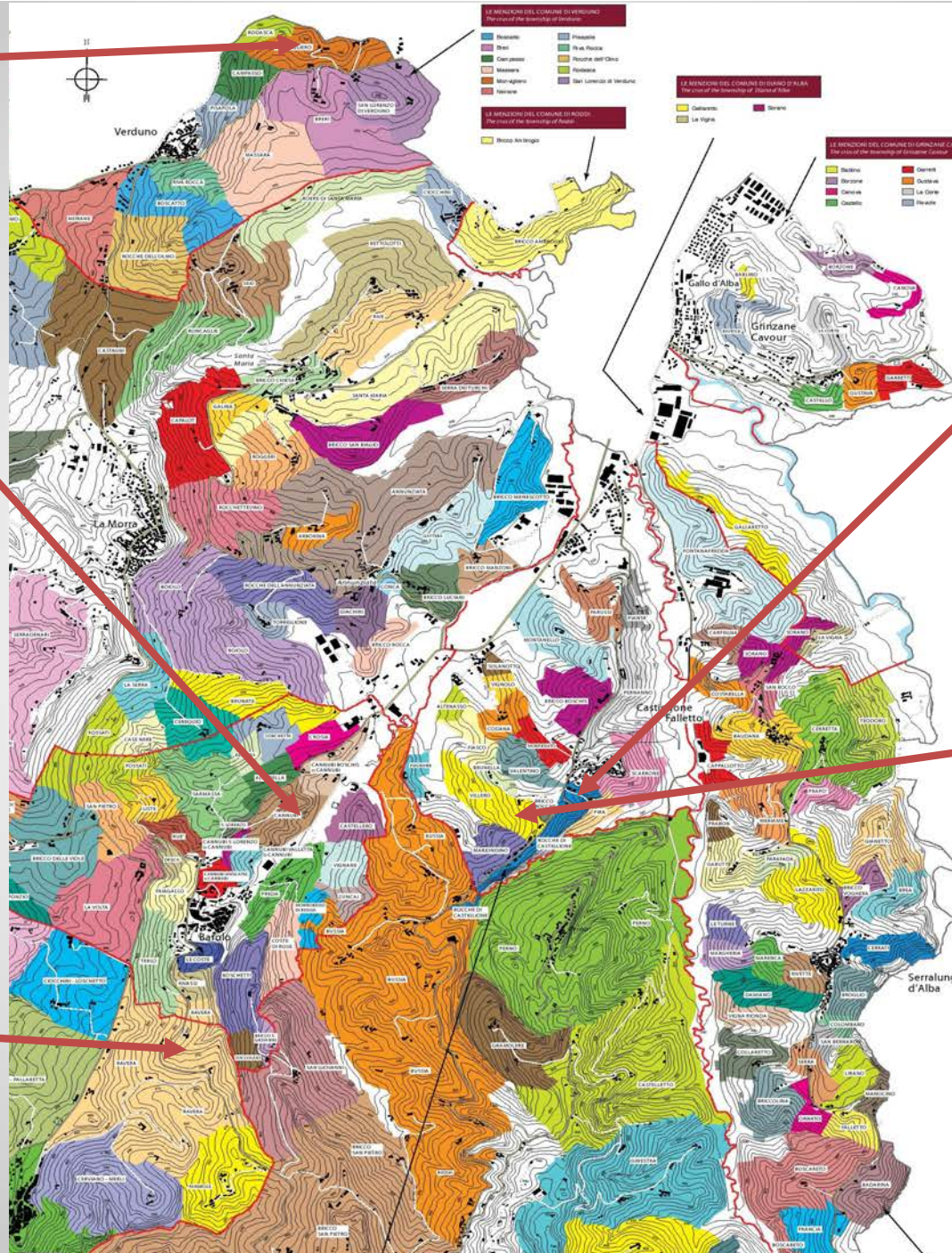
- Grape-growing & winemaking activities in La Morra date back to the 1700s.
 - Present day winery founded by Giacomo Oddero in 1878.
 - One of the most important historic wineries of the area.
 - Giacomo Oddero (b. 1926), grandson of founder, had major impact on modern management of the Barolo appellation.
 - 35 hectares of vineyard (16.5 Nebbiolo) with holdings in many of the most famous Barolo MGAs including Bussia, Villero, Rocche di Castiglione, Brunate, Vignarionda.
-
- In process of conversion to organic viticulture, one vineyard at a time. About 18 ha certified so far.



1. Monvigliero 2014

2. Cannubi 2011

4. Ravera Vigna Elena 2006



3. Rocche 2010

5. Villero 2008

Villero



- 0.8 ha. 280 meters asl.
- SE exposition.
- 50+ year-old vines.
- Organically farmed.

Serravalian soil. Compact clay with marls over limestone.

Large vineyard with many owners.

Different expositions and altitudes: Upper right is west-facing. Most of the vineyard faces south/ southwest. Lower portion is flatter with less desirable exposition & more fertile soil.

- Yields big intense well-knit wines with firm tannic structure and dark solid fruit.

Vintage 2008

- Difficult year for downy mildew and oidium, which resulted in lower yields.
- Late season, compared to the norm.
- Relatively cool wet summer.
- Stable weather, with warm sunny days alternating with cool nights, started late August through September and early October creating perfect conditions for late-ripening nebbiolo.
- Excellent balance: good acidity, mature fruit, fine firm tannins.

Wine

- Fermentation + maceration about 25 days.
- Matured in 40 hl botte for 30 months.
- Bottle refining for 1 year
- 3,800-4,000 bottles/year



6. Barolo Vigna Rionda 2009 MASSOLINO

- Founded by Giovanni Massolino in Serralunga d'Alba in 1896.
- Currently managed by 4^o generation brothers Franco and Roberto, both enologists.
- 90,000 bottles/year (60% Barolo) from 20 hectares of vineyard.
- 4 Barolo MGAs: Marghera, Parafada, Vigna Rionda Riserva (Serralunga) and Parussi (Castiglione) plus a Classico blend of grapes from all 4 vineyards.

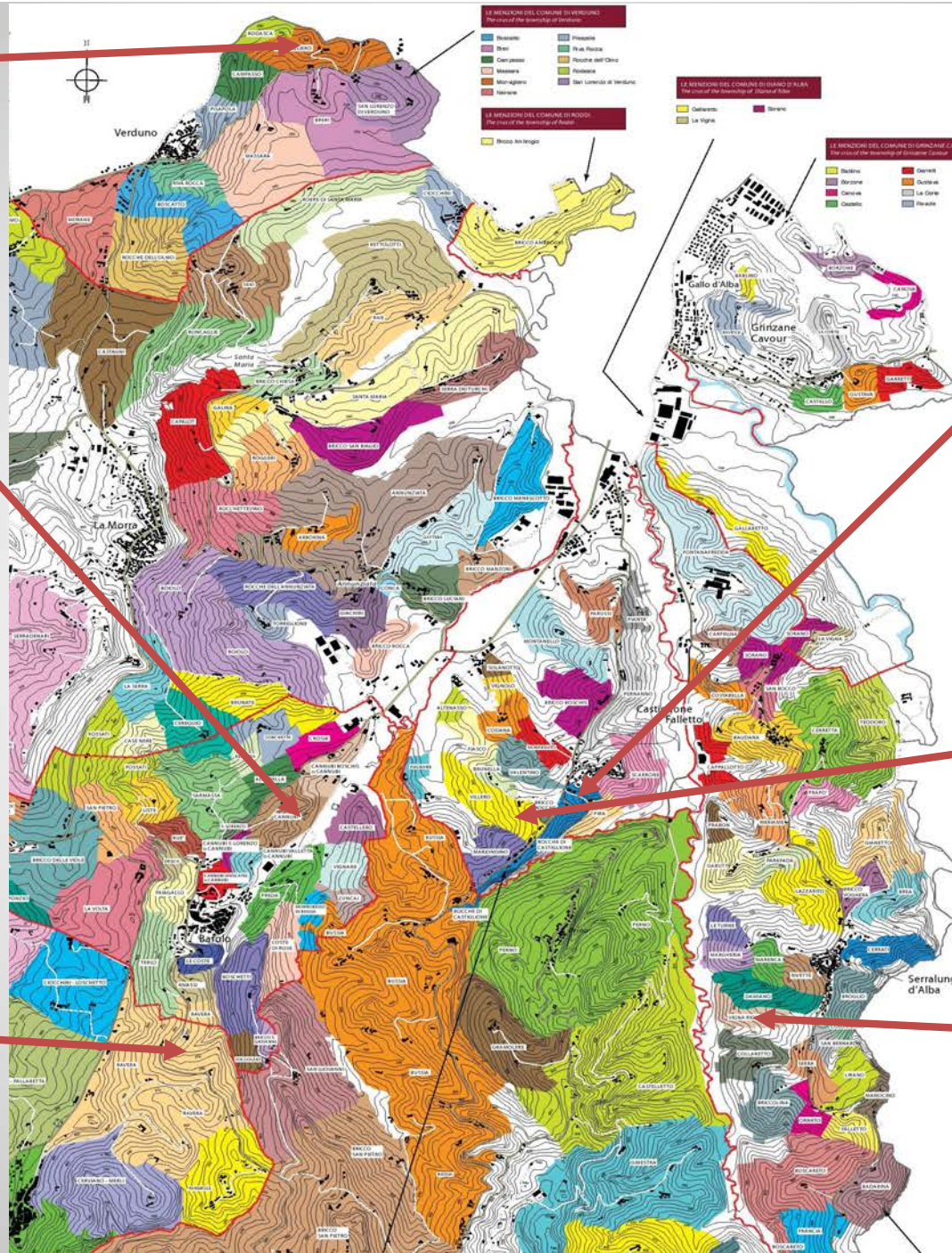


Franco Massolino

1. Monvigliero 2014

2. Cannubi 2011

4. Ravera Vigna Elena
2006



3. Rocche 2010

5. Villero 2008

6. Vigna Rionda
2009

Vigna Rionda

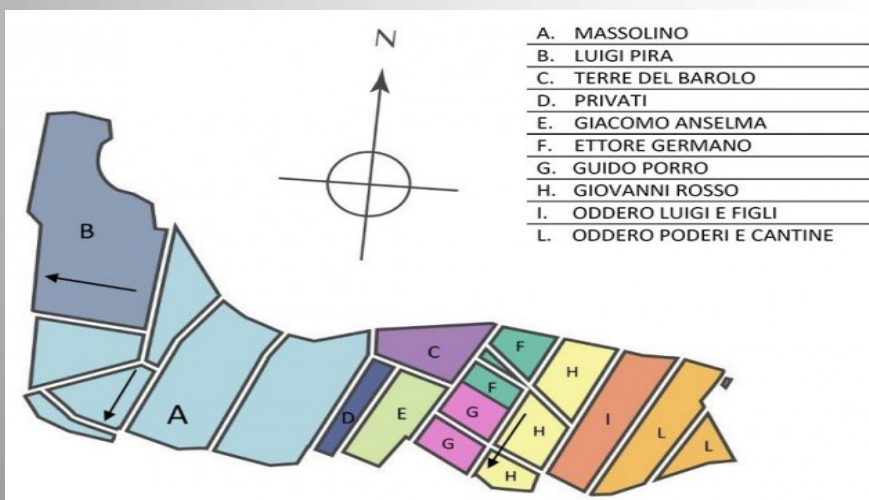


- Bruno Giacosa first produced a single-vineyard Barolo from Vigna Rionda in 1967.
- The finest vineyard of Serralunga and one of the classic crus of Barolo.
- Franco Massolino's grandfather became so enamored that he sold a much larger vineyard in order to obtain a small plot in Vigna Rionda.
- Post-WW II, when the family started to bottle and label their own wine, they named the company Vigna Rionda.

Over time Massolino acquired other parcels of the vineyard and today, with 2.5 ha, is the largest of the 10 proprietors.

Classic Serravalian limestone and marl with compact clay.

Creates big structured wines which take a long time to come around and show what they have.



Vintage 2009

- Lots of snow in winter and rain in spring. Very dry hot summer.
- Similarities with 2003 & 2007: high degree of ripeness. But surprising balance of acid.
- High variability based on specific location, grape and vineyard management:
- “2009 was very hot but, thanks probably to the compact marl limestone soil of this area, the vines surprised us by maintaining a vegetative balance right up to the end of harvest. Vigna Rionda in particular shows an optimal level of acidity and freshness, along with an uncommon roundness, that guarantees a long evolution ahead.”

— Franco Massolino

Wine

- 330 meters asl. Yield 4,500 kg/ha.
- Harvest 7 October. 30% less than usual due to greater than usual green harvest.
- 25-30 days fermentation/maceration
- Elevage 6 years before release: 3.5 years in 30 hl *botte of Slavonian oak*, 2.5 years in bottle.
- First year of production 1982.



7. Barolo Riserva Fossati Case Nere 2007

ROBERTO VOERZIO

- Roberto left family winery and created his own in 1986.
- Considered one of the young modernists and become an important protagonist of the 'modernist revolution'.
- In fact, he considers himself a 'traditionalist' who seeks the best ways to express the particularities of each terroir and grape variety:
- Post-harvest fertilization with cow manure and humus; short pruning 5-8 buds; severe green harvest in July; cutting off point of cluster in August; long maceration and spontaneous fermentation.

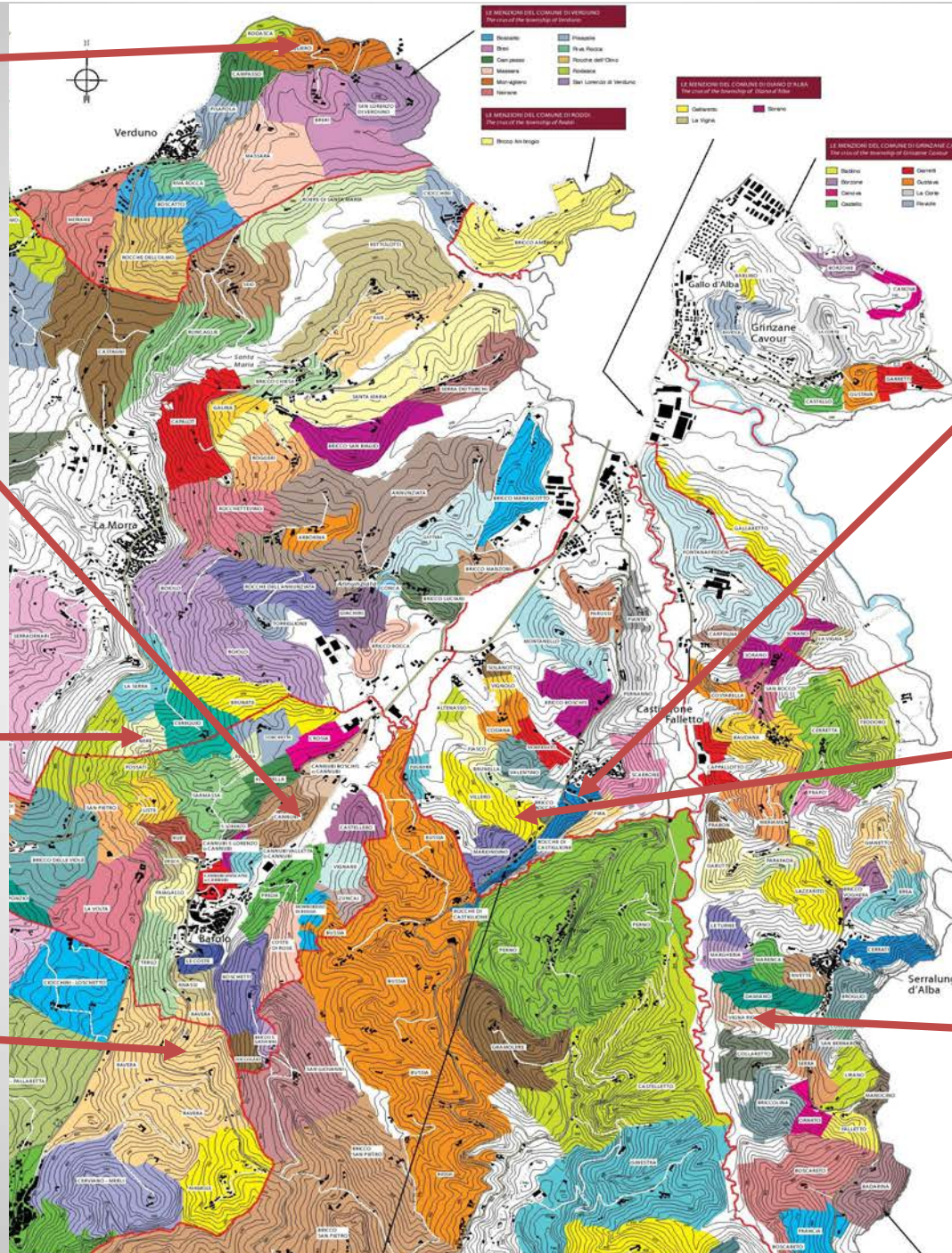


1. Monvigliero 2014

2. Cannubi 2011

7. Fossati Case Nere
2007

4. Ravera Vigna Elena
2006



3. Rocche 2010

5. Villero 2008

6. Vigna Rionda
2009

Fossati Case Nere



- East-southeastern exposure.
- Fine white silty soil with lots of sand.
- Combination of two adjacent vineyards:
- Fossati, which straddles boundary between Barolo and La Morra, is a bit higher, creating rougher more tannic wines, whereas Case Nere (completely within La Morra) produces wines that are softer more refined.

Vintage 2007

- Exceptionally early bud-break, flowering and harvest, 10-20 days earlier than previous years.
- Hot dry July lead to lots of sugar accumulation, but relatively cool August maintained acidity and freshness.
- Full-bodied rich fruit-forward wines. To this Voerzio has added extremely low yields and very long maturation in bottle.

Wine

- Yield 500 grams of grapes/vine
- Wild yeast fermentation, 10-30 days, stainless steel.
- 24 months in barrique, 30% new 70% used, plus 7 years in bottle.
- 3000-4000 bottles produced.



Suggested Retail Prices

- | | | |
|----|--|-----------------|
| 1. | G.B. BURLOTTO Barolo Monvigliero 2014 | \$175.00 |
| 2. | MARCHESI di BAROLO Barolo Cannubi 2011 | \$90.00 |
| 3. | BROVIA Barolo Rocche 2010 | \$110.00 |
| 4. | ELVIO COGNO Barolo Ravera "Vigna Elena" 2006 | \$130.00 |
| 5. | ODDERO Barolo Villero 2008 | \$70.00 |
| 6. | MASSOLINO Barolo Vigna Rionda 2009 | \$150.00 |
| 7. | ROBERTO VOERZIO Barolo Fossati Case Nere 2007 | \$380.00 |

**A very special thanks to the truly iconic
producers for making their superlative Barolos
available for this presentation!**

*Thanks also to the Society of Wine Educators
and to all of you for your attention.*

Alan Tardi

